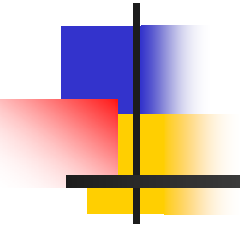


Storm Water Regulation Overview



Greg Davis
EPA Region 8
Denver, CO



Storm Water Regulations

- Phase I (1990):
 - Medium and large municipalities
 - Large construction activity (5+ acres)
 - Ten categories of industrial activity



Permitted Industrial Activities

- Category One (i): Facilities with effluent limitations
- Category Two (ii): Manufacturing
- Category Three (iii): Mineral, Metal, Oil and Gas
- Category Four (iv): Hazardous Waste, Treatment, or Disposal Facilities
- Category Five (v): Landfills
- Category Six (vi): Recycling Facilities
- Category Seven (vii): Steam Electric Plants
- Category Eight (viii): Transportation Facilities
- Category Nine (ix): Treatment Works
- Category Ten (x): Construction Activity *
- Category Eleven (xi): Light Industrial Activity



Phase II Regulations

- Phase II (1998) adds:
 - * Small construction (1-5 acres)
 - * *Regulated* small municipalities
 - Previously exempted industrial sources



Permitted Construction

- Small construction: 1-5 acres
- Large construction 5+ acres
- Common development or sale?



Common Plans of Development

- Phased projects
- Common funding source
- Contiguous plots of land



Common plans of development are handled differently depending on the permitting authority

- Subdivision registration (MN)
- EPA (individual permits)
- Transfer forms (CO)



What is construction?

- Construction activity – clearing, grading, and excavating resulting in a land disturbance



Construction Permit Requirements

- Storm water management plan
- Site (self) inspection
- Water quality standards considerations



Pollution Prevention Plans

- SWPPPs or SWMPs kept on site
- Site map
- BMPs for pollution prevention
 - Stabilization, structural controls, management practices, housekeeping
- Final stabilization / long-term mgt.
- Inspection



Tips for Management Plans

- Properly staging major earth disturbing activities can dramatically decrease the costs of erosion and sediment controls
- Stabilization practices are the first line of defense in preventing erosion



Site (self) inspection

- Timing – Every 14 days or within 24 hours of a significant rain event
- Goal – Erosion prevention and maintenance of structural control measures and housekeeping



Water Quality Standards

- A plan must contain conditions to assure attainment of water quality standards
- A plan must be consistent with any TMDL assumptions (for pollutants of concern)
 - <http://www.epa.gov/owow/tmdl>



Notice of Intent (application)

- Submitting an N.O.I. means you agree to all terms of the permit
- NOIs must be submitted prior to construction (EPA) – 90 days after the 2003 permit is finalized (if covered under the 1998 permit)



Who submits an N.O.I.?

- EPA – Each entity considered an operator or large or small construction activity must submit an N.O.I.



An “operator” has:

- Operational control over the construction plans and specifications (Owner/Developer),

-OR-

- Day-to-day control over the activities necessary to ensure compliance with the pollution prevention plan (General Contractor)



Notice of Termination

- A project can be terminated when a site is finally stabilized
- Finally stabilized – 70% of natural vegetative cover



Waivers for small construction

- 1-5 acre sites only
- Low erosivity waiver
- Lack of water quality impacts (Federal)



Mutually exclusive permits

- An EPA or State permit does not cover any additional requirements that may be set forth by local law
 - (e.g., Denver post-construction runoff/maintenance requirements apply to sites $\frac{1}{2}$ + acre)



Federal permitting authority

- EPA Region 8 authority:
 1. Small MS4 permits for federal facilities in Colorado
 2. Construction permits (1+) acres on Indian country and Colorado federal facilities



What constitutes construction on federal facilities?

- 1) the work is located on land owned by a federal agency/department; **and**
- 2) the work is designed and paid for by a federal agency/department



Federal Requirements

- Endangered Species
- Historic places
- 10 acre sediment basin (common drainage)
- Temporary stabilization (14 days)



State-specific differences:

- Different forms and permit
- Application fee in Colorado
- Endangered species/ historic properties
- Permit expiration date



MS4 Permit Requirements

A municipal separate storm sewer system (MS4) is:

- A conveyance or system of conveyances... owned by a state, city, town, or other public entity that discharges to waters of the U.S. and is:
 - designed or used for collecting or conveying stormwater
 - not a combined sewer
 - not part of a Publicly Owned Treatment Works (POTW)



Regulated small municipalities

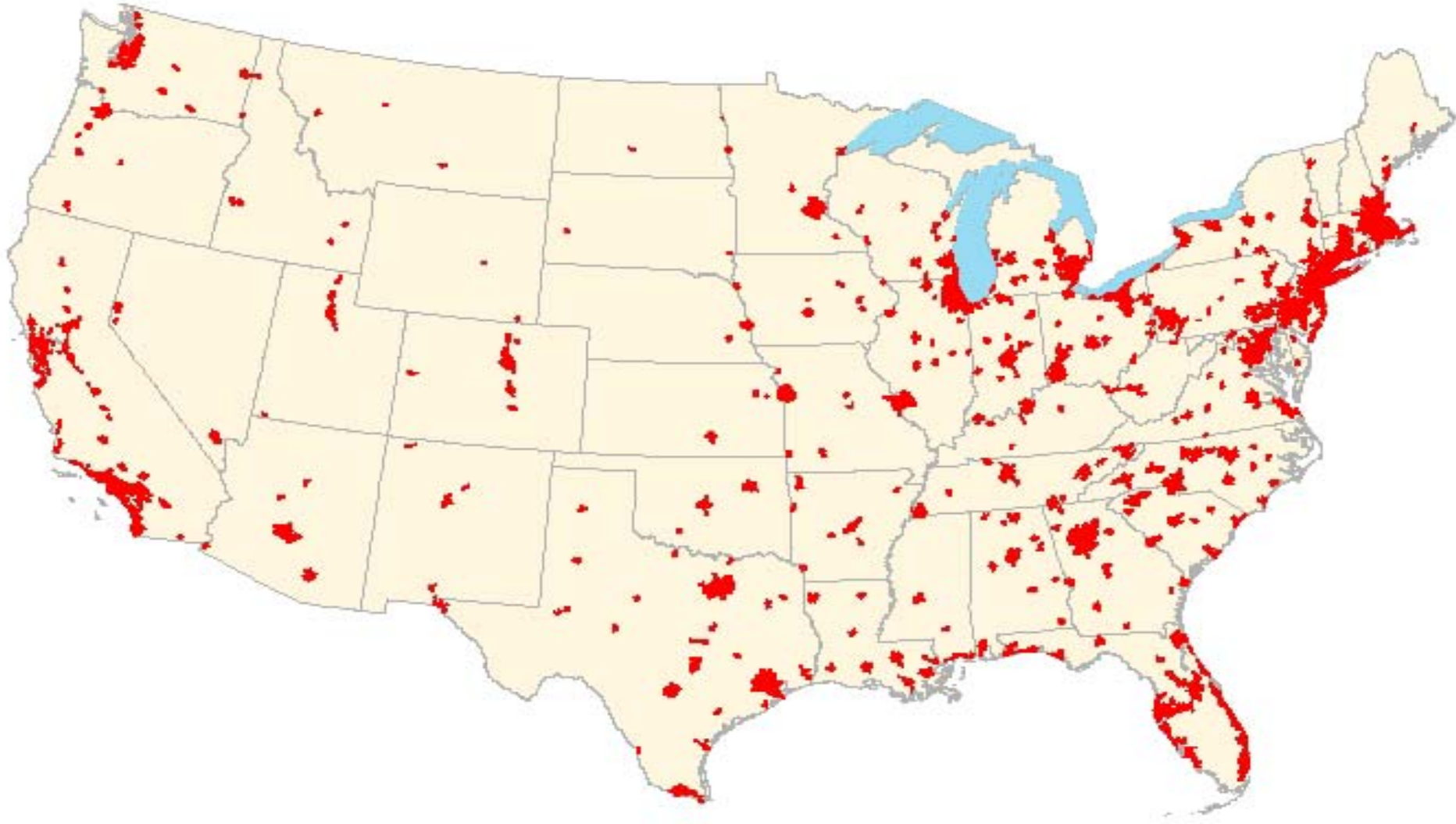
- Phase II (1998) adds:
 - * *Regulated* small municipalities (MS4s)



Regulated Small MS4s

- Small MS4s permitted by March 10, 2003
 - MS4s located in “urbanized areas”
 - Designated MS4s based on criteria set by the State Agencies

Urbanized Areas (2000 Census)





Types of MS4s

- Cities
- Towns
- Counties
- Townships
- Boroughs
- Road Commissions
- Drain Commissions
- Drainage Districts
- Public School Systems
- Public Colleges and Universities
- State or Federal Prisons
- State or Federal Hospitals
- Military Installations
- State or National Parks
- DOTs

Allentown - Bethlehem, PA - NJ Urbanized Area Storm Water Entities as Defined by the 2000 Census

2000 Census Urbanized Areas

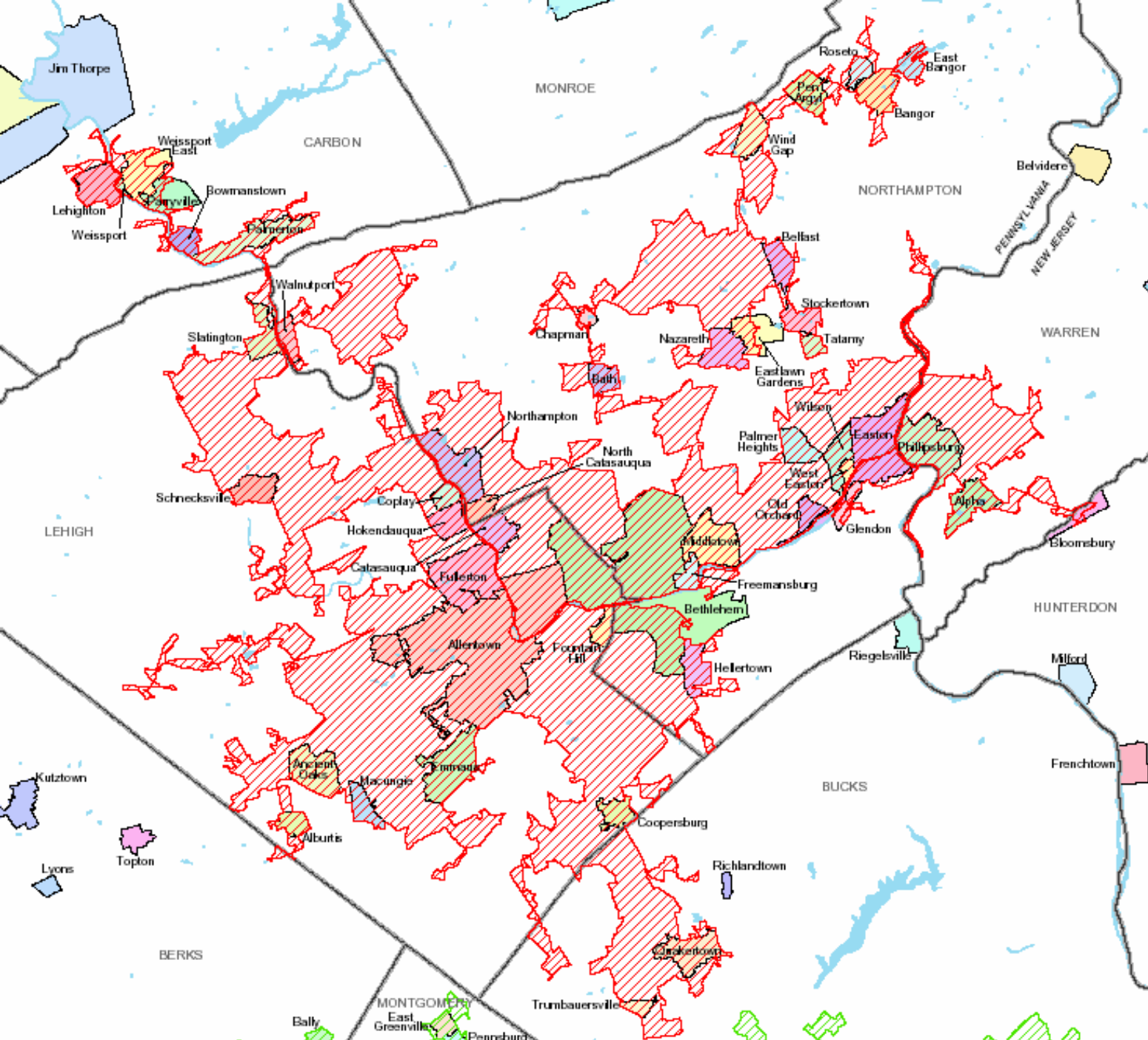
-  Allentown - Bethlehem, PA - NJ
-  Philadelphia, PA - NJ - DE - MD
-  Municipal Boundaries
-  County Boundaries
-  Major Waterbodies

SOURCE:
US Census Bureau TIGER data, 2000 Census

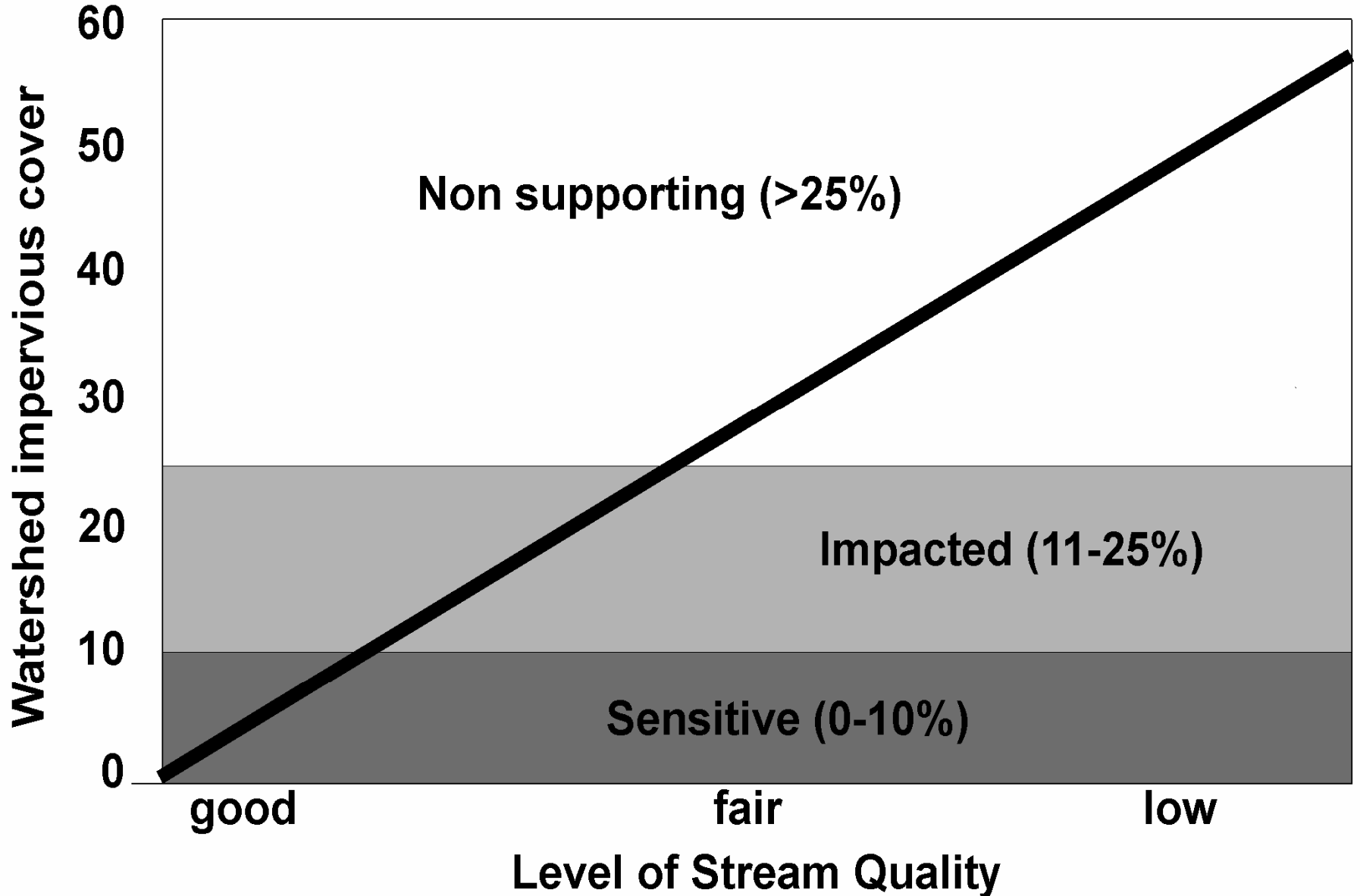
PROJECTION:
State Plane Coordinate System - Pennsylvania South
Horizontal datum - NAD83

MAP DESIGN:
September 23, 2002

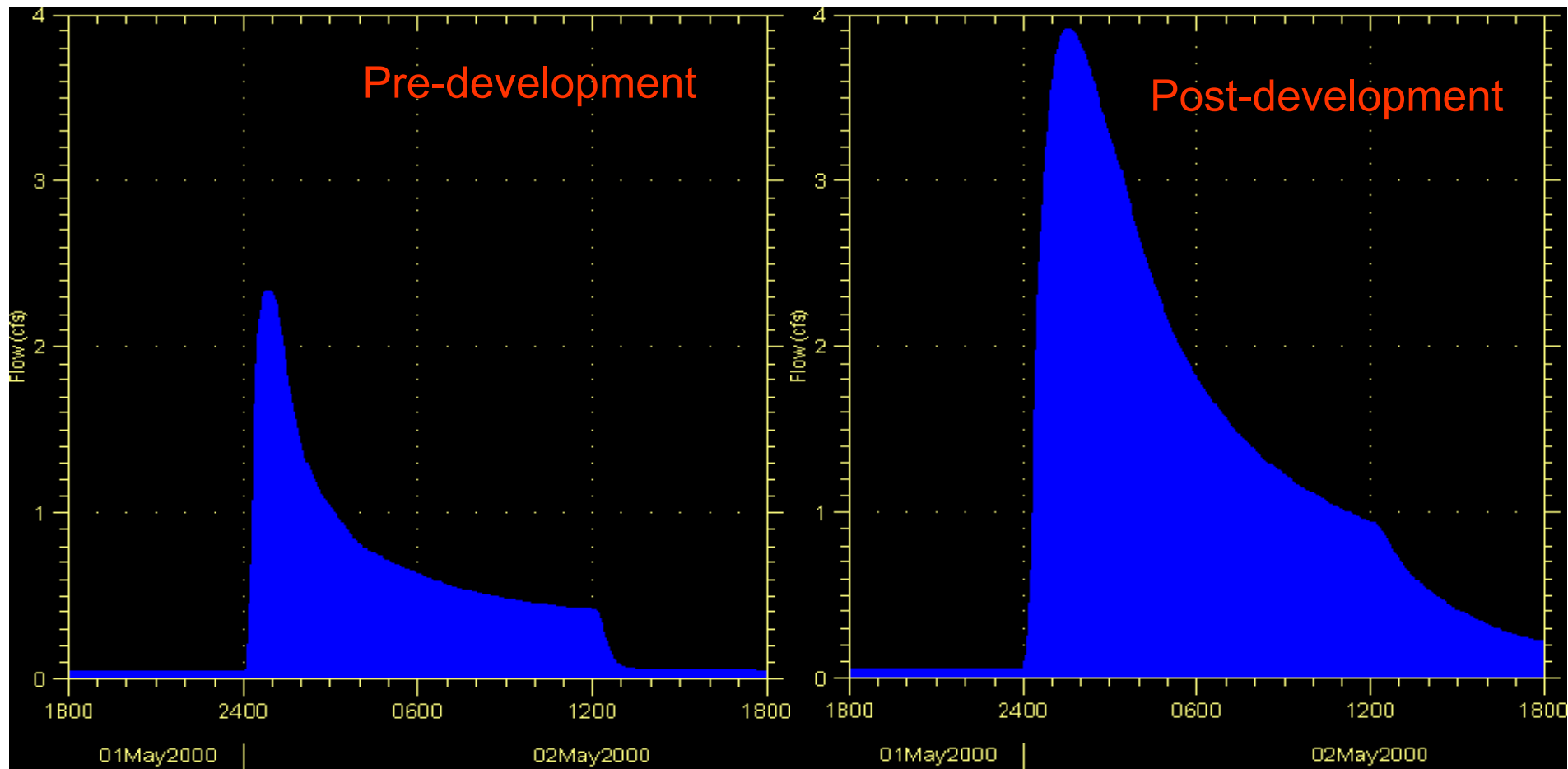
0 1 2 3 Miles
0 1 2 Kilometers



Relationship Between Impervious Cover and Stream Quality



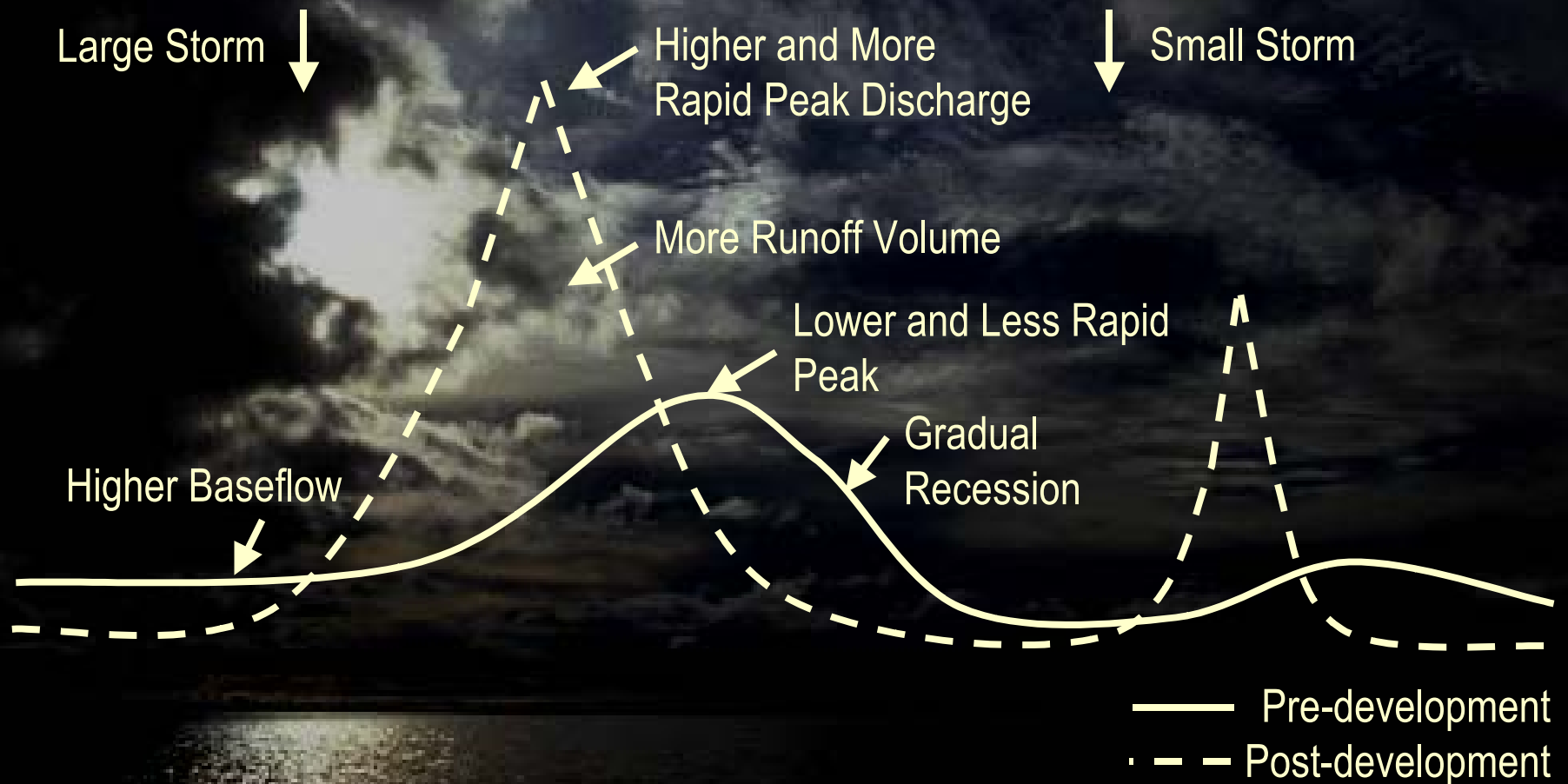
Runoff from Pervious/Impervious Surfaces





The surrounding area of this stream is also 20% impervious cover and shows stream erosion that is much worse than in the previous slide due to an absence of vegetation to hold together bank structure.

Impervious Surfaces Change the Peak Hydrograph





Six Minimum Measures

- Public education and outreach
- Public involvement and participation
- Illicit discharge detection and elimination
- Pollution prevention/ good housekeeping
- Construction site runoff control *
- Post-construction runoff control *



Implementing Minimum Measures

PHASE 2 MS4s:

- Establish measurable goals for each minimum measure
- Have 5 years to implement program (until 2008)
- Report on progress in annual reports

Public Education and Outreach



Public Participation and Involvement



Illicit Discharge Detection and Elimination



Pollution prevention/ good housekeeping (for municipal operations)





Construction Site Runoff Control

Regulated Small MS4 Operators are required to develop:

- Regulations requiring erosion and sediment control
- Site plan review procedures
- Inspection and enforcement procedures
- Procedures for public information



Post-construction runoff control

Regulated Small MS4 Operators are required to:

- Develop regulations requiring post-construction runoff controls
- Ensure long-term maintenance of controls

Post-construction runoff control







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& PETS OFF
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Federal Facility MS4s in Colorado

- Fort Carson
- US Air Force Academy
- Denver Federal Center
- Denver VA Hospital
- Peterson Air Force Base
- Department of Commerce, Boulder campus
- FCI Englewood
- Buckley Air Force Base



Other Regulated Small MS4s

- www.epa.gov/region8/stormwater
- www.epa.gov/npdes



Contact Information

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